

Amendments to the Specification

Please replace the paragraph beginning at page 5, line 11 with:

The CCD camera of the present embodiment has a rectangular frame which includes a lens and charge-coupled device (CCD) to receive incoming light. The CCD camera includes a digital processor for processing images from the CCD, and a memory. Further, the camera is coupled to a controller 33 as may be present in a barrier movement operator housing 32. The coupling may be by attached wires 90 as shown or by a wireless link. The CCD is a solid-state electronic component which is micro-manufactured and segmented into an array of individual photosensitive elements, or "pixels." The more common CCDs found in camcorders and other retail devices have a pixel array that is a few hundred pixels high by a few hundred pixels wide (e.g., 500x300, or 320x200), yielding tens of thousands of pixels. Since most CCDs are only about 1/4" or 1/3" square, each of the many thousands of pixels are only about 10 millionths of a meter (about 4 ten-thousandths of an inch) wide. The CCD photosensitive elements accomplish their task of sensing incoming light through the photoelectric effect releasing electrons when hit with photons of light. The electrons emitted within the CCD are fenced within nonconductive boundaries, so that they remain as electric charge within the area of the photon strike. As long as light is allowed to impinge on a photosensitive element, charge will accumulate in that pixel. When the source of light is extinguished, e.g., a shutter is closed, or an obstacle interrupts the light beam, a simple electronic circuit and a microprocessor or computer are used to unload the CCD array, record the amount of charge in each pixel, and process the resulting data into an image, or a digital representation, digital "map" of an image.

Please replace the paragraph beginning at page 7, line 19 with:

FIG. 3 shows an embodiment in which the source 10 is installed on the ceiling of the garage, and the light pattern is observed by a camera positioned inside the garage at an angle to the garage opening. When an object, such as a box 21 comes into the garage door opening, the CCD camera 30 observes a changed light pattern 15', as shown in FIGs. 2 and 4. The software in the controller 33 analyzes the digital representations of the light pattern 15' by correlating with the stored image of pattern 15 to identify whether a change in the detected line 15 to 15' is an obstruction. When the past and present images are sufficiently different, the object 21 is

considered an obstacle, and an obstruction signal is sent to the garage door operator 32. The controller 33 in the operator 32 if moving the barrier may respond to the obstruction signal by stopping and/or reversing a moving barrier, it may inhibit motion of the barrier or it may signal an audible or visual alarm.